

Appl. No. 09/670/870  
Amdt. Dated August 11, 2005  
Reply to Office Action of 4/11/05

Docket No. CM00914S  
Customer No. 22917

### REMARKS/ARGUMENTS

Applicants have amended Claims 7, 10-11, 18-19, 21, 25, 28, 30, 32 and 35 and have cancelled Claims 8-9, 23, 26-27, 31 and 33. Claims 1-7, 10-22, 24-25, 28-30, 32 and 34-37 remain pending in the application. No new matter was added by these amendments. Please reconsider this application in view of the above amendments and these remarks and arguments.

Applicants acknowledge that Claim 24 has been allowed.

The Examiner has objected to Claims 4, 5, 8-11, 13, 14, 33 and 34 as being dependent upon a rejected base claim, but states that these claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants have amended Claim 7 to include the limitations of allowable Claims 8 and 9 (and have correspondingly cancelled Claims 8 and 9), thereby rendering Claim 7 allowable. Moreover, Claims 10-20 that depend from and include all of the limitations of amended Claim 7 are likewise allowable. Applicants have further amended Claim 32 to include the limitations of allowable Claim 33 (and have correspondingly cancelled Claim 33), thereby rendering Claim 32 allowable. Claims 34-37 that now depend from and include all of the limitations of amended Claim 32 are likewise allowable. Regarding Claims 4 and 5, based on their arguments below, Applicants believe that Claim 1 is in a condition for allowance and likewise believe Claims 4 and 5 that depend from and include all of the limitations of Claim 1 are also in a condition for allowance.

The Examiner has objected to Claim 19 due to informalities. Applicants have amended Claim 19 as the Examiner suggested by replacing the limitation "digital-to-analog" with "analog-to-digital." Applicants, therefore, request that the Examiner remove the objection to Claim 19.

The Examiner has rejected Claims 18 and 35 through 37 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have amended Claim 18 to depend

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from Claim 17 instead of Claim 7, thereby addressing the lack of antecedent basis for some of the limitations recited in Claim 18. Applicants have further included the limitations of Claim 33 in Claim 32 and have amended Claim 35 to depend from Claim 34 which depends from amended Claim 32, thereby addressing the lack of antecedent for some of the limitations recited in Claims 35-37. Applicants, therefore, request that the Examiner remove the 35 U.S.C. §112 rejections of Claims 18 and 35-37.

The Examiner has rejected Claims 1 through 3, 6, 7, 12 and 15 through 20 under 35 U.S.C. 102(b) as being anticipated by Capman, et al. (EP 0854626 A1). Applicants traverse these rejections. Applicants have amended Claim 7 to place it in a condition for allowance, and all of the Claims that depend from Claim 7, including Claims 12 and 15-20 are now in a condition for allowance. Applicants further submit that Capman, et al. does not anticipate Claims 1-3 and 6 because it fails to disclose all of the limitations recited in Claim 1 and included by dependency in Claims 2, 3 and 6.

More particularly, Capman does not disclose the limitations of "determining a Euclidean norm of an echo-replica signal; [and] determining a Euclidean norm of an input signal" recited in Claim 1 and included by dependency in Claims 2, 3 and 6. The Examiner admits in the Office Action dated 4/11/05 that these limitations are not explicitly disclosed in Capman, et al. stating that "Capman anticipates all elements [of Claim 7] except the signal processor determining the Euclidean norm of an echo replica signal. Capman, . . . does not determine the Euclidean norm of the echo replica signal. . . Capman anticipates all elements [of Claim 7] except the signal processor determining the Euclidean norm of an input signal. Capman, . . . does not determine the Euclidean norm of the input signal." Instead, the Examiner argues that "Capman discloses an echo canceller that: delivers (i.e., determines) an echo prediction signal  $y(n)$  that corresponds to the echo replica signal claimed *and inherently has a Euclidean norm*; [and] produces (i.e. determines) an observation  $z(n)$  that corresponds to the input signal claimed *and inherently has a Euclidean norm*."

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Applicants respectfully disagree with the Examiner. Applicants submit that the Examiner has not proven that the above-quoted limitations recited in Claim 1 are inherently found in Capman, et al. "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." MPEP §2112. As required, the Examiner has not provided any basis in fact and/or technical reasoning that the alleged inherent limitations of "determining a Euclidean norm of an echo-replica signal; [and] determining a Euclidean norm of an input signal" recited in Claim 1 necessarily flow from the teachings of Capman, et al. This is especially true since the Examiner admits that the structure for determining the Euclidean norms of those signal does not exist in Capman, et al. and also admits that a use of the Euclidean norms (as recited in allowable Claim 4) for determining the gradient step size is also not disclosed in Capman, et al.

The Examiner has rejected Claims 21 through 23 and 25 through 31 under 35 U.S.C. 102(b) as being anticipated by Hirano (USPN 5,608,804). Applicants have cancelled Claims 23, 26, 27 and 31, thereby rendering moot the Examiner's rejection of these claims. Applicants have amended Claims 21 and 25 to clarify the distinctions between these claims and Hirano. Each claim has been amended to include the limitations of "wherein said far-end signal and said error signal, are digital signal blocks, each said digital signal block containing at least two digital samples and estimating said amplitude measure of said far-end signal comprises summing said absolute value of said at least two samples corresponding to said far-end signal, and estimating said amplitude measure of said error signal comprises summing said absolute values of said at least two samples corresponding to said error signal". Applicants believe that these added limitations are not disclosed in Hirano. Therefore, Applicants submit that amended Claims 21

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and 25 are now in a condition for allowance, and Claim 22 that depends from Claim 21 and Claims 28-30 that depend from Claim 25 are likewise now in a condition for allowance.

The Examiner has rejected Claim 32 under 35 U.S.C. 102 (b) as being anticipated by Homa, et al. (USPN 4,645,883). As stated above, Applicants have amended Claim 32 to include the limitations recited in allowable Claim 33, thereby rendering Claim 32 in a condition for allowance.

The Applicants believe that the subject application, as amended, is in condition for allowance. Such action is earnestly solicited by the Applicants.

In the event that the Examiner deems the present application non-allowable, it is requested that the Examiner telephone the Applicant's attorney or agent at the number indicated below so that the prosecution of the present case may be advanced by the clarification of any continuing rejection.

Please charge any fees that may be due to Deposit Account 502117, Motorola, Inc.

Respectfully submitted,

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